

Listing of the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

1 - 44. (Cancelled)

45. (Previously presented) A method for enhancing the transformation ability or the viability of a bacterium, said method comprising:

- (a) increasing the unsaturated fatty acid content of the membrane of said bacterium by
 - (i) enhancing expression of one or more genes that encode one or more gene products which increase said unsaturated fatty acid content, or
 - (ii) genetically selecting for a bacterium having an increased membrane unsaturated fatty acid content, and
- (b) storing said bacterium at a temperature of from about +4°C to about -80°C,

wherein said bacterium, after said storing, exhibits enhanced transformation ability or enhanced viability relative to the transformation ability or viability exhibited by said bacterium prior to increasing its unsaturated fatty acid content.

46. (Previously presented) A method for enhancing the transformation ability or the viability of bacteria, said method comprising:

- (a) increasing the unsaturated fatty acid content of the membrane of said bacteria by
 - (i) enhancing expression of one or more genes that encode one or more gene products which increase said unsaturated fatty acid content, or
 - (ii) genetically selecting for a bacterium having an increased membrane unsaturated fatty acid content, and
- (b) storing said bacteria at a temperature of from about +4°C to about -80°C,

wherein said bacteria, after said storing, exhibit enhanced transformation ability or enhanced viability relative to the transformation ability or viability exhibited by said bacteria prior to increasing their unsaturated fatty acid content.

47. (Previously presented) The method of claim 46, wherein said storing of said bacteria is at a temperature of from about +4°C to about -20°C.

48. (Cancelled)

49. (Previously presented) The method of claim 46, wherein said enhancing expression comprises increasing transcription or translation of said one or more genes.

50. (Previously presented) The method of claim 46, wherein said enhancing expression comprises increasing the copy number of one or more genes, wherein said one or more genes are comprised by one or more vectors.

51. (Previously presented) The method of claim 46, wherein said bacteria are gram negative bacteria.

52. (Previously presented) The method of claim 51, wherein said bacteria are of the genus *Escherichia*.

53. (Previously presented) The method of claim 52, wherein said bacteria are the species *Escherichia coli*.

54. (Previously presented) The method of claim 46, wherein said unsaturated fatty acid is selected from the group consisting of oleic acid, linoleic acid, palmitoleic acid, and cis-vaccenic acid.

55. (Previously presented) The method of claim 54, wherein said unsaturated fatty acid is selected from the group consisting of cis-vaccenic acid and palmitoleic acid.

56. (Previously presented) The method of claim 46, wherein said one or more genes are selected from the group consisting of a *fabB* gene, a *fabF* gene, a *fabD* gene, a

fabG gene, a *fabA* gene, a *fabI* gene, a *fabZ* gene, a *fadA* gene, a *fadB* gene, a *fadE* gene, a *fadL* gene, a *fadR* gene, a *farR* gene, and a *fatA* gene.

57. (Previously presented) The method of claim 56, wherein said one or more genes is a *fabB* gene.

58. (Previously presented) A method for obtaining a competent bacterium, said method comprising:

- (a) increasing the unsaturated fatty acid content of the membrane of a bacterium by
 - (i) enhancing expression of one or more genes that encode one or more gene products which increase said unsaturated fatty acid content, or
 - (ii) genetically selecting for a bacterium having an increased membrane unsaturated fatty acid content; and
- (b) making said bacterium competent.

59. (Previously presented) A method for obtaining competent bacteria, said method comprising:

- (a) increasing the unsaturated fatty acid content of the membrane of bacteria by

- (i) enhancing expression of one or more genes that encode one or more gene products which increase said unsaturated fatty acid content, or
 - (ii) genetically selecting for bacteria having an increased membrane unsaturated fatty acid content; and
- (b) making said bacteria competent.

60. (Cancelled)

61. (Previously presented) The method of claim 59, wherein said enhancing expression comprises increasing transcription or translation of said one or more genes.

62. (Previously presented) The method of claim 59, wherein said enhancing expression comprises increasing the copy number of said one or more genes.

63. (Previously presented) The method of claim 59, wherein said bacteria are gram negative bacteria.

64. (Previously presented) The method of claim 63, wherein said bacteria are of the genus *Escherichia*.

65. (Previously presented) The method of claim 64, wherein said bacteria are the species *Escherichia coli*.

66. (Previously presented) The method of claim 59, wherein said unsaturated fatty acid is selected from the group consisting of oleic acid, linoleic acid, palmitoleic acid, and cis-vaccenic acid.

67. (Previously presented) The method of claim 66, wherein said unsaturated fatty acid is selected from the group consisting of cis-vaccenic acid and palmitoleic acid.

68. (Previously presented) The method of claim 59, wherein said one or more genes are selected from the group consisting of a *fabB* gene, a *fabF* gene, a *fabD* gene, a *fabG* gene, a *fabA* gene, a *fabI* gene, a *fabZ* gene, a *fadA* gene, a *fadB* gene, a *fadE* gene, a *fadL* gene, a *fadR* gene, a *farR* gene, and a *fatA* gene.

69. (Previously presented) The method of claim 68, wherein said one or more genes is a *fabB* gene.

70. (Previously presented) The method of claim 47, wherein said bacteria exhibit enhanced transformation ability or enhanced viability after storage at about -20°C.

71. (Previously presented) The method of claim 59, wherein said bacteria exhibit said enhanced transformation ability after storage at about -20°C.

72 - 77. (Cancelled)

78. (Currently amended) ~~The competent *E. coli* of claim 73, wherein said A~~
competent *E. coli* possessing a membrane having an increased unsaturated fatty acid content
relative to total fatty acid content, wherein said increased unsaturated fatty acid content is
caused by the enhanced expression in said *E. coli* of one or more genes are selected from the
group consisting of a *fabB* gene, a *fabF* gene, a *fabD* gene, a *fabG* gene, a *fabA* gene, a *fabI*
gene, a *fabZ* gene, a *fadA* gene, a *fadB* gene, a *fadE* gene, a *fadL* gene, a *fadR* gene, a *farR*
gene, and a *fatA* gene, wherein said competent *E. coli* exhibits enhanced transformation
ability relative to the transformation ability exhibited by said competent *E. coli* prior to
increasing its unsaturated fatty acid content.

79. (Previously presented) The competent *E. coli* of claim 78, wherein said one or
more genes is a *fabB* gene.

80. (Cancelled)

81. (Previously presented) The method of claim 45, further comprising rendering
said bacterium competent.

82. (Previously presented) The method of claim 46, further comprising rendering
said bacteria competent.

83 - 88. (Cancelled)

89. (Currently amended) ~~The competent *E. coli* of claim 85, wherein said one or more genes are~~ A competent *E. coli* having a membrane with an increased unsaturated fatty acid content, said increase caused by enhancing the expression of one or more genes selected from the group consisting of a *fabB* gene, a *fabF* gene, a *fabD* gene, a *fabG* gene, a *fabA* gene, a *fabI* gene, a *fabZ* gene, a *fadA* gene, a *fadB* gene, a *fadE* gene, a *fadL* gene, a *fadR* gene, a *farR* gene, and a *fatA* gene.

90. (Currently amended) The competent *E. coli* of claim 85 ~~85~~ 89, wherein said one or more genes is a *fabB* gene.

91. (Cancelled)